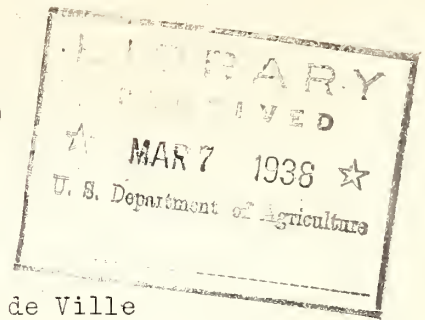


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LAND GRANT COLLEGE PROGRAM
NATIONAL FARM AND HOME HOUR
UNIVERSITY OF TENNESSEE
February 23, 1938
(11:30 A.M.-12:30 P.M., E.S.T.)



NBC ANNOUNCER:

The National Farm and Home Hour.

U-T BAND: (Segue) Great American Favorite --- Paul de Ville
and Spirit of the Hill

Fade on cue from Announcer

NBC ANNOUNCER:

The National Farm and Home Hour comes to you today from the Campus of the University of Tennessee at Knoxville - Down in Dixie. This is one of the series of monthly Land Grant College broadcasts. Through these programs we all become better acquainted with the Land Grant Institutions of our Nation, and the services these institutions are contributing to agriculture, rural life, industry and National welfare.

BAND: - Up and out.

ANNOUNCER:

The University of Tennessee band under the direction of Ernest W. Hall has played an original arrangement of Great American Favorite, capped by "Spirit of the Hill".

Farm and Home friends: Wallace Kadderly, Acting Chief of the Radio Service of the United States Department of Agriculture, will carry on from this point and Wallace, the microphone is yours.

KADDERLY:

Thank you, Lynn Brandt. Hello everyone. Some 2500 students and faculty members are gathered here in the University Memorial auditorium and gymnasium to bid you welcome to the University of Tennessee.

You have all heard of Southern hospitality. I can assure you that it is not lacking here today. How about it students? Let's give these good Farm and Home Friends from Coast to Coast and Border to Gulf a rousing welcome to the campus on the hill!

STUDENTS: (Applause.)

KADDERLY:

Well, these students have furnished rather convincing evidence that they are here -- and that they are glad you are with us, too.

The University of Tennessee was founded September 4, 1794, just one day after the establishment of the first Institution of higher learning West of the Alleghanies, and two years prior to the formation of the

(over)

State of Tennessee. At that time the Institution was named Blount College for William Blount, Governor of the Territory South of the Ohio River. And here is a significant thing in connection with the opening of the College; women were admitted on equal terms with men. In this day, that statement would be taken for granted --- but back in 1794 --- well, Blount College, now the University of Tennessee was the first State institution of higher learning in the new world to admit women.

That is something to shout about! The University chorus under the direction of J. Alvin Keene isn't going to shout but the members will "Sing A While Longer"!

CHORUS: Sing A While Longer.

KADDERLY: (Soliloquizing) Sing A While Longer, by O'Hara. :

(UP) The University of Tennessee campus is familiarly known as the HILL--- a hilltop circled by handsome brick buildings and dotted with trees. It overlooks the city of Knoxville, Gateway to the Great Smoky Mountains National Park. Headquarters of the Tennessee Valley Authority are a stone throw down town. Norris Dam with more than two million acres of impounded water in its storage basin, is a few miles to the North. Here this Land Grant College, the TVA, and other agencies, are laboring side by side to meet the changing conditions of the modern agricultural, industrial and economic life of the Nation. We now present President James D. Hoskins, who will tell us something of the work of the University. - Dr. Hoskins!.

PRESIDENT HOSKINS:

Ladies and gentlemen. Greetings from the University of Tennessee and the Tennessee Valley! May I express our appreciation that the Farm and Home program should honor us today, and may I take this opportunity to describe briefly what this Land Grant College is doing to meet changing conditions in these modern times.

The present has not come upon us gradually as it used to do. It has burst upon us like a storm, like a war, and we, like a nation are engaged in actual battle - while at the same time we have not yet completed construction of our cantonments and ammunition factories.

On a visit to our campus you will see many students, crowded class rooms and busy laboratories. You will see a University uniting all branches of knowledge to serve a whole people. You will observe the impact of the present upon the past, new buildings standing shoulder to shoulder with ivy clad buildings that are reminders of the time when life was simple, easy, mellow and meditative.

But what you will not observe is our larger campus, the larger battlefield upon which we operate, the State of Tennessee. Nor will you see the campaigns in which we are engaged, cooperating with all Land Grant Institutions, with the State and Federal Government, and with private agencies and organizations throughout this commonwealth.

We are not engaged merely in training a student body and an Extension enrollment totaling 7000 individuals. We are engaged in Research that concerns the whole people. We are studying methods of increasing farm income. We are studying conservation of natural resources, problems of commerce and industry, transportation, consumption, and distribution. These all tend to make better homes, better farms, better industries and better markets.

Our Agricultural Experiment farms and Stations are located not only on the campus but in those sections of the State where the greatest need is. Increased annual income from corn and tobacco alone, as the result of University research and promotion, would more than support this Institution. Cotton, livestock, control of blights and pests, cooperative marketing; - our programs are too numerous and too far reaching to be even enumerated here. Daily we encounter brand new problems straining our capacities and sinews to the utmost.

What is a Land Grant Institution? In 1862 the Federal Government made grants of land to certain colleges and universities in various states, with the contractual understanding that these institutions would teach and promote agriculture and the mechanic arts. From time to time additional Federal appropriations have provided funds for Research and Extension. Agriculture and industry, are of course, fundamental activities of our people.

Of Tennessee's population of 2,616,000 persons, about one million are gainfully employed. Of these, at the present time 40 percent derive their living from agriculture; 20 percent directly from industry; another 20 percent are engaged in transportation, commerce, and related occupations. Each decade shows a marked trend toward industry and its various forms of livelihood. We are undertaking, in Tennessee to develop industry and agriculture as partners, one supplementing the other.

The problems of transportation, commerce, taxation, of Government itself, in a tempestuous present like this are dire concerns for agriculture and industry alike. They are concerns, therefore, for the Land Grant College. There is scarcely a problem of our State or Nation, but is explored sooner or later in this institution. We have achieved much. We have driven definite salients. Much more remains to be done.

In Tennessee, we are very fortunate in having the Colleges of Agriculture and Engineering as integral parts of the State University. They have grown in an atmosphere of pure science and liberal culture. It is their duty to translate knowledge and methods into the life of the farm and into the processes of industry.

This University, like all Land Grant Colleges, belongs to the people. These institutions are your servants - your staff of aids in the war for better living. It is your war! our war! Let's wage it together.

KADDERLY:

President Hoskins has given us a graphic explanation of the purposes to which this Land Grant Institution is dedicated. We are going to meet some of the members of the faculty who are working on these "Problems of

the State and Nation", he mentioned. But, first the band has another number for us:

"The March of Time," by Barnhouse.

BAND: "March of Time" - Barnhouse.

KADDERLY:

The University of Tennessee is justly proud of its College of Engineering and Mechanical Arts, ---- proud of it because of the splendid contributions made to agricultural and industrial enterprises of the State and Nation. Professor N. W. Dougherty will tell us something of the work of the College of Engineering. Give us the set-up, Professor Daugherty---- and then, if you don't mind, perhaps you and other members of the staff will answer our questions.

DOUGHERTY:

Well, Mr. Kadderly, there are many things about the College of Engineering that might be emphasized. It embraces four major departments: Chemical, Civil, Electrical and Mechanical Engineering, in addition to the Engineering Experiment Station. We have the regular Engineering course leading to Bachelor of Science Degree in four years. In addition we have a cooperative course which leads to the same degree in five years.

KADDERLY;

A Cooperative Course. What does this involve---- teaching the principles and practice of cooperation?

DOUGHERTY:

No, it is not that kind of a course.

Our cooperation is with the industries of Tennessee and adjoining States. The year is divided into four quarters. Student's above freshmen standing who have shown proficiency in their work are eligible for the course. They spend three months, alternately in industry and in classes at the University. Their compensation in industry is fixed by their value to the employer - their work in the University progresses as in the regular course toward a degree. We try to find employment that will make a definite contribution to the student's professional education. That it is successful is shown by the fact that 75 percent of the students go with their employers after graduation.

KADDERLY:

A very effective way of combining theory with practice --- to the advantage of both student and employer.

DOUGHERTY;

Yes, it works out very well, and it is made possible by the strategic location of the University. We are in the midst of a rapidly developing industrial section of the South, extending from Roanoke to Birmingham.... a section dotted with mines, textile mills, manufacturing establishments, steel plants, and facilities for transportation. These furnish employers for our students and graduates.

KADDERLY:

Another question, Professor Dougherty: Have you had any part in the great power development that is taking place in Tennessee and the South?

DOUGHERTY:

Yes, twenty years ago our Hydraulic Engineering Department made extensive surveys of power possibilities of the Tennessee River and its tributaries. In another decade we will see the most promising of these projects realized. This work along with our studies of rural electrification has already been, and will continue to be, of untold benefit to the agricultural and industrial population of the South.

Before you ask more questions I'm going to refer you to Dr. C. A. Perkins, Director of the Engineering Experiment Station.

KADDERLY:

All right. Dr. Perkins tell us about some of the Research work you have under way here of special interest and value to agriculture and industry.

DR. PERKINS:

Well, one of our most promising projects deals with improvements in the methods of extracting cotton seed oil.

KADDERLY:

That's a very important industry to the South. I recall that the products of the cotton oil mills in a favorable year reach a value of 250 million dollars or more. Just what are you doing with cotton seed?

DR. PERKINS:

R. Brooks Taylor is responsible for the present development of this piece of research. He is right here and I should like to have him answer your question.

KADDERLY:

All right, Mr. Taylor, and let me ask you as a starter the "Why" of this research project. In other words, the problem on which it is focused?

TAYLOR:

Simply stated, the thing we are after is a process that will press the oil out of the cotton seed faster and more completely, and at the same time give us a purer oil as it comes from the presses than present processes.

KADDERLY:

Is your study still in the laboratory stage, or have you reached the point where your research has been applied on a commercial basis?

TAYLOR:

Both.

KADDERLY:

Both?

TAYLOR:

Yes, both. You see, it's this way. We have been working on this problem for seven or eight years. Then to be sure that the laboratory tests are practical under commercial conditions, we obtained by gifts from the industry and by purchase a complete plant of commercial size for processing cotton seed. The new form of cooker that we designed and built is so promising that the National Cotton Seed Products Association this year has given the Experiment Station 200 tons of cotton seed for our experiments.

KADDERLY:

Another question. To whom will your work be of particular value?

TAYLOR:

Well, of course, the commercial mills will benefit because we are going to be able to produce a better product and a larger quantity of oil from a given amount of cotton seed. But the cotton grower will benefit too, because he will get a better return from his crop. And the consumer will benefit because of the better quality of the product.

KADDERLY:

A three-way benefit -- winding up with better doughnuts and corn fritters.

Now, Mr. Taylor, I understand you have done some valuable work in developing a quick freezing process for preserving strawberries and other fruits. There is lots of interest in that subject all over the country. What's your angle?

TAYLOR:

Well, we have devised a method by which we have successfully frozen strawberries quicker and at higher temperatures. The quick freezing process commonly in use require a temperature of 30 degrees fahrenheit below zero. Our plant does the job at three to five degrees above zero. Furthermore, the job is done in six minutes instead of two to three hours required by other processes.

KADDERLY:

Six minutes! That is fast work. How about the quality of the frozen products?

TAYLOR:

Excellent. The berries come out as hard as bullets. Each berry is frozen separately and the color is perfect. Strawberries frozen in our plant brought an advance over the price commonly paid for frozen berries.

KADDERLY:

Now, Mr. Taylor, aside from the mechanics of your freezing method, what is the economic significance of its application to --- say the strawberry industry?

TAYLOR:

I'll answer that in three sentences.

The strawberry industry is one of considerable importance in this and other sections of the country. The berries ripen rapidly and the season is relatively short. Freezing aids in preventing an over supplied market and makes it possible to hold the berries, thus insuring a steady year-round supply for preserving plants and for table use.

KADDERLY:

Thank you Mr. Taylor for your explanation of these two very fine pieces of work. Now Dr. Perkins, back to you. What next?

DR. PERKINS:

Our department of Mechanical Engineering is doing some research of very great interest. Ford L. Wilkinson, professor of mechanical engineering, will give you a brief summary of this work.

KADDERLY:

All right, Professor Wilkinson, what is this research?

WILKINSON:

Better utilization of coal in large steam generating units. We are attempting to determine the effect of pre-heated air when pulverizing coal for steam power-plant practice.

The laboratory work on this problem has been completed, and will be carried to the new boiler installed in the University power plant. If the result from laboratory procedure can be successfully transplanted in the boiler room, a further reduction in the cost of power generation may result.

KADDERLY:

So the Mechanical Engineers are doing their part in reducing power costs.

WILKINSON:

Exactly.

KADDERLY:

Has anything been done in the Mechanical Engineering Department in the field of Air Conditioning for the home?

WILKINSON:

Yes. We have conducted experimental work in dehumidifying by adsorption methods.

KADDERLY:

Hold everything! Will you put that description in other words?

WILKINSON:

It means drying air without the use of refrigeration. If this can be done economically, it should result in lowering the operating costs of home summer conditioners.

KADDERLY:

But hasn't something of this sort been done before?

WILKINSON:

Yes, there are several commercial units that employ this method, but our research has taken a different line, and we are now developing equipment that we have every reason to believe will be a new departure from present methods and will assist in providing controlled weather in the home at costs lower than existing at present.

KADDERLY:

Controlled weather! If Mark Twain could have heard you say that! Well, Jupiter Pluvius was out of control here yesterday and gave us a nice spring-like shower---to bathe forsythia and jonquils blooming so profusely. Director Keene takes up the sprinkling can now, and hands it to the chorus, as he directs that group in "As Torrents in Summer", by Sir Edgar Elgar.

CHORUS: As Torrents in Summer - Elgar

KADDERLY:

Not all of the work of the University of Tennessee is in its own buildings, as F. C. Lowry, Director of the University Extension Division will point out. Director Lowry tell us what your division is doing.

LOWRY:

Let me emphasize three activities: Extension teaching, through correspondence courses, off-campus classes, short courses, and lecture series; Extension library service; and Radio service. As you see, University Extension is a channel for making the University available, at home, to the people who support it.

Consider Extension teaching: Any adult may enroll in correspondence study, either for credit or for personal improvement. Moreover, we have 35 instructors holding classes away from the University for those who cannot leave their work to go to school. We arrange short courses and irregular campus courses for those who can be away from home for brief periods. In these ways we annually teach as many as come to school at the University.

Again, we lend books, drama material, and package libraries, made up of current articles on matters of personal interest and prepare bibliographies for people in small towns and country who do not have access to public libraries, serving in this manner yearly around ten thousand inquiries.

Now, as to radio: we have a campus studio connected by wire with WSM of Nashville, 200 miles West of us. From this studio our University faculty broadcasts three times a week. In addition, agents of the Agricultural Extension Service broadcast daily over local radio stations. Programs are designed to meet special cultural and vocational interests of the general population.

Let me emphasize this statement is illustrative, not inclusive. For instance, it does not include the ten thousand monthly news letters to high school seniors, and others, for enrichment of civic understanding nor other services just as vital. Figuratively, University Extension is a roadway, connecting the people in their homes with the University, for

all types of general educational service. The campus of the University is the State of Tennessee.

KADDERLY:

Thank you Director Lowry!

BAND: (Segue) MARCH RALEIGH RICHARDS
(Fade on cue from announcer)

ANNOUNCER:

You are listening to the National Farm and Home Hour, coming to you today from the University of Tennessee campus at Knoxville, Tennessee. This is the National Broadcasting Company --

BAND - (Up and out).

ANNOUNCER:

Back on the Campus of the University of Tennessee at Knoxville -- we continue the National Farm and Home Hour --- and here is Wallace Kadderly.

KADDERLY:

The University of Tennessee has one of the highest ranking Home Economics Schools in the country; one of the largest in the South. A fine new building considered one of the most modern of its kind in arrangement and equipment, was recently completed. Also, a new nursery school building --- distinctive as one of the few structures in the United States planned as an environment for the development of young children.

At the head of this splendid School is Miss Jessie Harris, and she stands right here. Miss Harris, I am sure this audience will be especially interested in the work your school is doing in training young women in the art of modern day home making. Give us a birds-eye view please.

MISS HARRIS:

I think I can summarize our objectives in terms of the proverbial wedding apparel advice given to brides.

KADDERLY:

Could you by any chance mean that old adage about "choosing something old, something new, something borrowed, and something blue".

MISS HARRIS:

Exactly that. For example, the something old, which we in Home Economics, pass on to our students is the wisdom and the experience which has in the past, and is today, making possible a high type of home and family life. Through our graduates who are homemakers, teachers of home making, or home demonstration agents, the University of Tennessee is effectively serving the homes of today and the homes of tomorrow.

KADDERLY:

What about something "new"?

MISS HARRIS:

That refers to research and experimental work. New knowledge and improved practices are needed for solving the problems of the homes. For example, in cooperation with the Experiment Station, we are studying among other things the composition of food products. As a result of the research done in our laboratories certain varieties of the sweet potato have become more important in the diet. Our research has shown that these are a very valuable source of a vitamin A, much needed by growing children as well as by adults. Then, as another example there is our textile laboratory. It has proved very helpful to purchasers of textile materials by helping them to make a wiser expenditure of their money. Our Nursery School also is a consultation center for parents who have problems with their children.

KADDERLY:

You have given us examples of something old and something new. Let's see --- something old --- something new --- something --- borrowed. Something borrowed? Does home economics borrow?

MISS HARRIS:

Home Economics is a great borrower. We are indebted to all of the other fields of learning because we borrow from them the general principles that we have developed. We may borrow from Physics or Engineering the knowledge needed for selection, care, operation and upkeep of household equipment. From chemistry and biology we have developed the science of nutrition and in our Nursery School we constantly apply the fundamental knowledge of Psychology.

KADDERLY:

So far, so good! Now, what about something "blue"?

MISS HARRIS:

Well, you know the blue bird is a symbol of happiness. Our objective in home economics is a happier home and family life. In fact our slogan might well be, "When better homes are built young people educated for home making will build them".

KADDERLY:

I think that's more than a slogan, Miss Harris. It's a most worthy objective.

Director Keene --- a song by the chorus would be appropriate here. We'd like to hear that grand composition by Nobel Cain --- Flow Gently Sweet Afton.

CHORUS: FLOW GENTLY SWEET AFTON - CAIN

KADDERLY:

Now, let's put on our seven league boots and step out to the University Farm, with its approximately 750 acres about a mile west of the Hill. Dominating the farm is Morgan Hall, named for Dr. H. A. Morgan, former Dean and Director of the College of Agriculture and Experiment Station, later President of the University of Tennessee, and now one of three Directors of the Tennessee Valley Authority. Morgan Hall Houses the College of Agriculture, the Agricultural Experiment Station offices and laboratories, and

the Agricultural Extension Service. Here students are trained in agriculture, and research work is carried on in well-equipped laboratories and on field plots. Dr. M. Jacob, Dean of the College of Agriculture is going to give us a few facts on the work of the College in training students in Agriculture. - Dr. Jacob.

DR. JACOB:

The resources of Tennessee are peculiarly impressive, as few states enjoy such a variety of substantial enterprises, all of which provide a conspicuous contribution toward the welfare of her people.

While there has been a tremendous development along industrial lines, the State's basic industry, as it has always been in the past, will continue to be agriculture. With an approximately 70 percent rural population, 30 million acres in farm land, and an annual gross farm income of more than 160 million dollars, it is only logical to assume that the problems of permanent stability for the State must be approached primarily through an economy which is predominantly agriculture.

If rural life is to embody more general enjoyment of higher standards of living and become sufficiently attractive to make farming an ambition for our younger and on-coming generations, many of the older practices that have become obsolete must be replaced by those that will give greater assurance of higher and more desirable agricultural standards.

This is a challenge to resident teaching in the College of Agriculture, for in order to progress and achieve this great ambition of better farms and better farm life, the training of our boys and girls is fundamental. If the many activities now underway in behalf of Agriculture are to succeed and endure it will require the support of strong and intelligent leadership. Developing such leadership is largely the responsibility of resident teaching.

There is now substantial evidence that progress is being made in the distribution of trained men and women into the different agricultural fields, as indicated by the largest enrollment of students in our College of Agriculture in the history of the University. Our graduates channel into all the related fields of Agriculture, including education research, and actual farm operation. But in each case the preparation for these respective fields begins under the influence and guidance of the Agricultural faculty in the Department of resident teaching.

KADDERLY:

Thank you Dr. Jacob. Once again Director Hall leads the University Band, this time playing Nocturne and Morning Hymn of Praise -- from the Atlantis suite by Zamecnik.

BAND: NOCTURNE AND MORNING HYMN OF PRAISE ZAMECNIK

KADDERLY:

The Tennessee Agricultural Experiment Station has won wide recognition throughout the country for its many contributions to Agricultural Advancement.

Back of this fine record of accomplishment is Director C. A. Mooers, who will trace results of some of the research projects of the Station.

Director Mooers, what about this Neal Paymaster Corn I've heard so much about?

MOOERS:

Neal Paymaster Corn, introduced by the Experiment Station is now the most extensively grown variety in the State and is estimated to be worth \$2,000,000 a year more to Tennessee farmers than the varieties formerly grown.

KADDERLY:

Two million dollars - I would say that is something to crow about! Now Director Mooers since coming to your state I have heard that hay from improved varieties of lespedeza, discovered or introduced by your Station, now fill many barns in Tennessee that used to be empty because of red clover failure. Is that true?

MOOERS:

Yes, that is true --- and just here may I say something about crimson clover. Crimson Clover is not a new crop in Tennessee, but its true value and place on the farm is now being generally recognized as a pasture and soil building winter cover crop as a result of studies made by the Station. Studies extending over a period of six years at the West Tennessee Experiment Station showed that more days of full pasture were obtained from crimson clover, either alone or in a mixture with rye grass, than were obtained from blue grass, white clover, and lespedeza combined. Not only that but the group of high grade Jersey cows used in the experiments produced both milk and butter more profitably on the pasture alone than the group of similar animals which was kept on the same kind of pasture and was fed a standard ration of concentrates in addition.

KADDERLY:

That should be good news to dairymen. Now, to go back to red clover, I am told that red clover was once the principal hay crop grown by Tennessee farmers. Then suddenly the crop began to die out. What happened and what did your Station do about it?

MOOERS:

Yes, red clover once was extensively grown in Tennessee and as you said it began to die out because of anthracnose. The crop would come up and make good growth for awhile and then suddenly die. Farmers became alarmed. The Experiment Station sent men into the stricken fields. They selected seed from scattered plants that withstood the disease, and from those plants Tennessee wilt resistant clover was developed and is now being widely grown, not only in this State, but in some other states, even as far West as Oregon.

KADDERLY:

Score another point for your Station, Director Mooers. Turning from crops to fertilizer.. Your Station is carrying on research along this line that has commanded national attention. We want to hear about that.

MOOERS:

Well, we have been experimenting recently with a new fertilizer developed by the TVA ---- a fertilizer that contains a higher percentage of phosphoric acid than those now used. The name of this material is calcium

metaphosphate. In our experiments it has proved to be highly efficient, apparently about equal, pound for pound of phosphoric acid, to the usual commercial phosphate.

KADDERLY:

Phosphorus is exceedingly important, especially for use on soil conserving crops to check erosion and build fertility.

MOOERS:

Yes, and higher analysis phosphate fertilizers should enable farmers to get their phosphorus cheaper and hence use more of it. There was a time when it was thought you couldn't get much phosphate into fertilizers. Superphosphate now commonly used contains only 16 percent. Calcium metaphosphate contains 64 percent.

KADDERLY:

Sixty-four percent? Wow! That means the farmer who uses the fertilizer will save a lot in bagging, freight and handling costs. And he will get just four times the fertilizing value out of the same weight of fertilizer.

MOOERS:

That is it exactly. High-analysis fertilizers have long been advocated for the savings they make possible. The 64 percent phosphate offers a real opportunity, and incidentally it can be made from lower grade rock than is needed for common superphosphate which is now in common use. That means longer life for our phosphate reserves.

KADDERLY:

Director Mooers, you have given us a fine report indicating how farmers are utilizing the services of the Tennessee Experiment Station.

Director Hall, a salute to the Tennessee Experiment Station!

BAND: 30 seconds.

Fan fare.

KADDERLY:

Extension work in Agriculture and Home Economics in the University of Tennessee is under the leadership of Director C. E. Brehm, ably assisted by Miss Margaret A. Ambrose, Assistant Director in Charge of Home Demonstration Work. And right here - let's again turn the spotlight on the "home side" of this Land Grant institution. Miss Ambrose, we should make one thing clear at the very start.

AMBROSE:

And what is that?

KADDERLY:

Does home demonstration work have to do with the whole family - or only the girls and women?

AMBROSE:

The whole family by way of the girls and women. I'll tell you why.

The whole family benefits by the demonstrations in gardening, poultry, foods, including food preservation, home management, clothing, handicrafts and the marketing of home products. These demonstrations are carried on by the farm people themselves - in the homes and on the farms. Last year in the state over 60,000 rural homes reported some improvements for comfort, convenience and attractiveness. 3,000 homes installed improved water systems.

KADDERLY:

Very impressive, Miss Ambrose. You mentioned handicrafts. That reminds me of the impressive and beautiful Rural Arts Exhibit in Washington during the Land Grant College meeting last November. Did Tennessee farm people take part in it? I suppose they did.

AMBROSE:

Yes. Tennessee crafters were well represented. They sent hooked, and braided rugs, dyed with vegetable dyes, hats made of splints and corn shucks, corn shuck dolls and other products. Handicraft is profitable too. Last year Tennessee rural women and girls sold \$10,000 worth of handicraft articles.

KADDERLY:

Well, I'd say Tennessee should be interested in native handicraft with the thousands of tourists coming into the state. By the way, how many women and girls are taking part in the Home Demonstration and girls' 4-H club work?

AMBROSE:

The enrollment last year was almost 40,000 women and about 24,000 girls. You might also be interested to know that each year a Short Course for rural women is held here at the University as a part of the Home Demonstration program.

KADDERLY:

Well, if they are like the farm women in the other states, they get a lot out of an experience like that.

AMBROSE:

They surely do - and share it with their neighbors when they get home. Last year 529 women from 60 counties attended.

KADDERLY:

That's fine! Now let's hear from Director Brehm.

DIRECTOR BREHM:

The Agricultural Extension Service, through its staff of County Agents, takes the University of Tennessee, and the United States Department of Agriculture to every farm and farm home, white and negro in the State. There is a county agent in each of the 95 counties, a home demonstration agent in 65, and negro agents in 19 counties, where the negro population is large.

These agents are in daily contact with farmers, homemakers, boys, girls, bankers, merchants and other people giving instruction on practically all phases of rural life. They travel not only on the hard surface roads, working with the higher income farmer, but they get out in the mud and dust,

back in the isolated parts of the county, in the small cabins, and on the small farms.

Fertile soil is one of the most important requirements for good farming, and a comfortable living for the family. Soils wear out like everything else, if not properly handled. Consequently, much of the agricultural extension instruction encourages practices and systems of farming that conserve and maintain the fertility of the soil the growing of livestock properly balanced with crops. Periodically, soils require grown on them some of the legumes Director Mooers was speaking about. Many of the soils require lime and phosphate to get good stands of legumes and grasses, as well as other crops. Last year there was spread 500,000 tons of ground limestone and a good many thousand tons of phosphate. There were, also, sown about 925,000 acres of legumes, grasses and other soil conserving crops. And incidentally, about 100,000 acres of land were terraced to prevent erosion.

Director Mooers mentioned crimson clover as a pasture and soil building winter cover crop. Last year in one small mountain county, farmers sowed 12,000 acres of land in crimson clover to improve the fertility of their soil, and to control erosion. Never before had there been more than 200 acres sown in that county in a single year. There are just a few of the Extension activities.

A very important part of our work is teaching rural boys to be good farmers, constructive, useful citizens and girls to be good homemakers, and have an interest in their community. Through 4-H clubs, boys learn the best farming methods and their interest in farm life is encouraged. Girls are taught sewing and cooking, gardening and many other practices useful in the home. Last year over 87,000 boys and girls were enrolled in 4-H clubs.

Many club members have earned the money to make a start in farming from club work. I know one club member who through dairy club work made over \$3,000 part of which will be used to pay tuition and expenses at the University of Tennessee. Not long ago a young man about 38, one of the most successful farmers in the State, and the son of a tenant farmer, told me he received his inspiration to be a good farmer from his 4-H club work. This work builds character and opens the finer side of rural life to boys and girls.

The Agricultural Extension Service in Tennessee is working with the Tennessee Valley Authority, the Agricultural Adjustment Administration, the Farm Security Administration and the Soil Conservation Service, in a State coordinated Agricultural Program. Through cooperation with these and other agencies the Extension Service attempts to serve the interests of all the people throughout the entire State.

The objective is to aid rural people in developing and conserving the rural resources of the State and to promote a more satisfying farm and community life.

KADDERLY:

From the explanation of Agricultural Extension work in Tennessee by Director C. E. Brehm we turn to the Band --- for a collegiate number familiar to all University of Tennessee people --- "Down the Field".

BAND: --- "Down the Field" - Friedman

KADDERLY:

Very good. So good that it calls for more. Director Hall give us that stirring march --- Officer of the Day.

BAND: --- "Officer of the Day" - Hall

KADDERLY:

"Hail, Alma Mater"

CHORUS: - "Hail Alma Mater"

(Fade on cue from announcer)

KADDERLY: (over humming by chorus)

We must say good bye now. President James D. Hoskins and other members of the faculty of the University of Tennessee have explained how this Land Grant Institution is assisting the people of Tennessee to meet changing economic and social conditions. Our thanks to them ----- to the members of the University chorus directed by J. Alvin Keene and to the University Band with Ernest W. Hall directing. They all cooperated splendidly.

"Hail Alma Mater" ----- as for myself, when I hear these strains henceforth, I shall be reminded of a very pleasant, informative hour ---- and Southern hospitality! (Applause)

CHORUS: - (Humming up and fading)

ANNOUNCER:

The National Farm and Home Hour came to you today from the campus of the University of Tennessee at Knoxville.

CHORUS: - (Up and out)

ANNOUNCER: - This program was presented through the National Broadcasting Company.

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